



Cycling**CANADA**Cyclisme

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BMX

High Performance Plan

2013-2016

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BMX is unique to our Olympic cycling sports in being a **family sport**, with kids as young as five competing on the same day as the Elites at the World Championships. It is a fantastic **entry point to cycling**, since kids and parents can ride together away from traffic for free. There are a number of **Olympic medallists in other cycling sports that began their careers in BMX**, and the bike skills they developed on their BMX bikes contributed to their success in events such as team sprint, keirin, and mountain biking. On top of all of that, BMX Supercross is an incredible event with speeds of up to 60 km/h, high technical demands, and bunch tactics over a roughly 350 m track. Supercross riders have a similar physiological profile to track sprinters, even while their event may be seen as the “fun” one in the cycling family. We want them to love their sport, and to be healthy and injury free so they can race at their best.

We have exciting opportunities with BMX right now, and are looking forward to the changes that will take place during the next four years.

London Olympic Games Performance Goals:

- One medal (Men’s BMX)
 - 18th place: Not achieved due to serious injury 2 months prior to the Olympics

Performance Goals 2016 and 2020:

- One medal in Men’s BMX at the Rio Olympic Games in 2016
- Qualify two riders in Men’s BMX and two riders in Women’s BMX in 2016
- Develop riders capable of winning medals in Men’s and Women’s BMX for 2020

Strategic Priorities

1. **Centralize** the program in Abbotsford, BC, under the direction of the National Team Coach
2. Increase **team size**, with team members being coached daily by the National Team Coach
3. Increase provision and efficiency of **IST services** due to centralization
4. Add another training group in **2015** at the **Toronto SX track** built for the 2015 Pan American Games

Technical Leadership

We haven't had the resources in the past four years to support a full team, and so we have built support primarily around one athlete who had potential for London. However, moving towards Rio having a consistent team of staff supporting a full team of athletes will allow us to create the high performance team culture that we believe will stimulate consistent success on the international stage. Leadership from the National Team Head BMX Coach will trigger this change.

2009-2012

The outgoing National BMX Coach worked incredibly hard to get a SuperCross facility in place in Abbotsford, BC. This is now a huge advantage to the Canadian riders, who previously had very limited access to SX tracks for practice, and therefore had a high rate of injuries in competition.

2013-2016

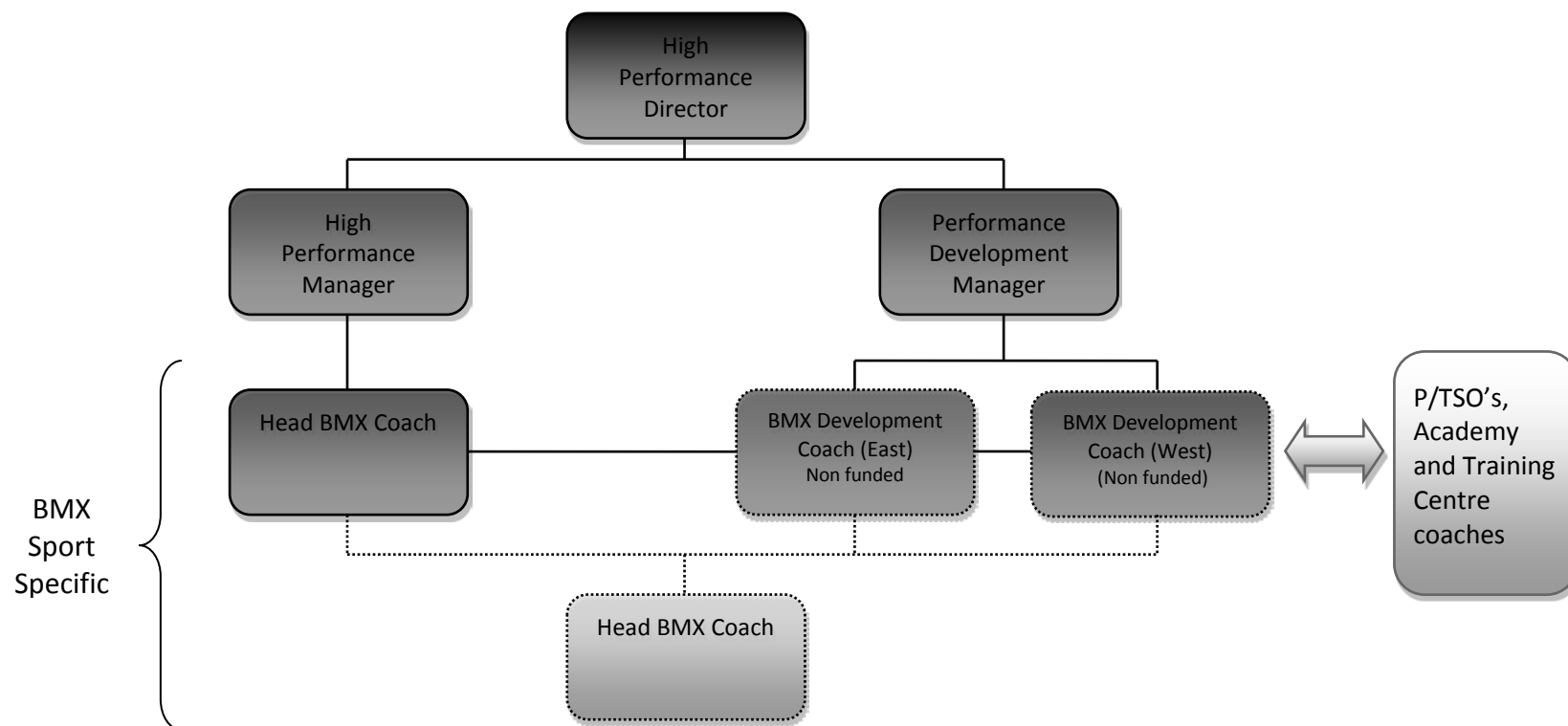
The incoming National BMX Coach adds world-class technical coaching skills to the team, and can move our riders forward with their skills, tactics, and fitness. It is likely that he will coach many of the National Team members moving forward, as they are eager to work with him.

We are exploring the possibility of appointing two Development Coaches, one in the East (2015) and one in the West (2014), working in conjunction with the National Coach to bring up the next generation of riders. They would build up the skills of the younger riders, so that when they join the National Team they can work on fitness and speed.

The biggest issue for all of our BMX riders is financial stress, given the number of international World Cups to travel to, and the very limited support for travel provided by the National Team in the past. An increase in **program funding** would have the biggest single impact of any possible intervention.

Connected to this, the Sport Canada **carding** in the past has prevented any “team” from forming. As athletes are carded one year, not carded the next, they develop animosity towards the person who “takes” the card from them. Without addressing this, forming a positive training environment and team will be very difficult. It may seem like a minor issue, but it has far-reaching consequences.

Diagram of the BMX coaching structure



Daily Training Environment

For the past four years, our BMX riders have had no daily training environment provided by the National Team, and so they have been doing the best with what they can put together on their own. This basic change has the potential to bring our team together and make a rapid improvement in their skills and fitness. The riders are excited to have the opportunity to be coached, and many of them are already planning to move to BC in the spring of 2013. We are so excited about the potential for BMX, and the opportunity to help our riders' progress.

2009-2012

The daily training environment was a major weakness in this quadrennial. Athletes trained on their own all over the planet, trying to get training time on Supercross tracks. The outgoing National Coach worked tirelessly to pull together the partnerships and funding needed to build a Supercross track in Abbotsford, and this was in place for part of the season before the London Olympics.

2013-2016

The new National Coach will be in charge of developing the daily training environment, incorporating SX-specific training, gym work, indoor BMX riding, skills training, and aerobic fitness as needed. The BMX SX track and winter indoor facility are both in Abbotsford, and we are working on identifying the best location and service providers for strength & conditioning

	What	When
1.	Establish training days and times in Abbotsford	Jan – March 2013
2.	Set up a strength & conditioning service for the team	Jan – March 2013
3.	Ensure necessary coaching tools are in place	April – Aug 2012

Science and Medicine

As you can see from our BMX benchmarks, for the past quadrennial we have **not had healthy athletes to send to the World Championships**, because they have injured themselves at World Cups. As BMX progressed from “normal” tracks to Supercross tracks, the injuries became more frequent and more severe. We must do a better job of **preventing injuries, rehabilitating** our riders, and **ensuring that they are at the skill and fitness level necessary to compete** at World Cups. The single biggest thing science and medicine could do to affect performance is to figure out how to keep our riders safe and healthy.

2009-2012

One of the most important but often overlooked components of any cycling performance is the bike – if it doesn’t work perfectly, the rider’s performance is compromised. We worked with a **BMX mechanic**, for 3 years before the Olympics, and he was in London for race day. This **consistency worked extremely well**, and we have not had a poor result as a by-product of a mechanical failure since we began this support.

With the team’s history of injuries, we put in place **Physiotherapy** and **Chiropractic** treatment through our two Lead Therapists for MTB and Track respectively. Some of our BMX riders had worked with both of them and formed a trusting relationship with them.

2013-2016

In the last quadrennial, IST services were primarily delivered at competitions, and occasionally at training camps. However, most services were sporadic due to limited funding, and for the final two years of the quadrennial services were focused on one rider.

By creating a **centralized program**, we can begin to **integrate IST services much more effectively and efficiently** to a larger group of athletes for a minimal increase in cost. Priority services identified by the National Coach are **Strength & Conditioning** (provided in the daily training environment as a team service), **Mental health/wellness & sport-specific skills**

(provided on an individual basis to all targeted riders), and **Performance Lifestyle** (also provided individually to all targeted riders). **Physiology** support would be beneficial in improving our understanding of the riders and their performance development, and could grow into an IST Lead role for BMX in the future.

Additional services will be arranged according to priority and potential impact on performance.

Our greatest challenge with BMX riders is keeping them healthy and injury-free. We **MUST** prevent some of these injuries, and reduce the severity of others. We are working on **protective clothing** to reduce the severity of injuries, and examining how to **teach them to fall** without breaking bones.

Mental health and preparation is another priority service, encompassing Sport Psychology, Performance Lifestyle, and Sport Psychiatry.

Strength training as a team is a key component of building a strong training group, and this service will be set up.

While there are scientific interventions that may impact performance in BMX, these are not a priority at this point. Our riders simply need to get strong, fit, and develop their technical and tactical skills.

	What	When
1.	Buy or develop chest and abdominal protective clothing	Before 2013 season
2.	Teach the riders “how to fall”	Early 2013
3.	Continue mechanic and therapist support at races	Throughout quadrennial
4.	Build a Strength & Conditioning service near Abbotsford	To start April 2013
5.	Provide support for mental health and performance	Throughout quadrennial
6.	Improve video feedback mechanism and speed	April 2013

System Development and Talent ID

Similar to the Beijing quadrennial, we only had one rider capable of earning significant qualification points for the Games, which nearly cost Canada our place at the Games while our top rider was recovering in hospital. For Rio, we need at least 3 riders fully supported and able to gain points for women and men, providing a buffer in case one of them gets injured and can't compete. With the crash potential in BMX, we **need a large group of riders who can all earn UCI points for Canada.**

2009-2012

The outgoing National BMX Coach, worked incredibly hard to get a **SuperCross facility** in place in Abbotsford, BC. This is now a huge advantage to the Canadian riders, who previously had very limited access to SX tracks for practice, and therefore had a high rate of injuries in competition. The incoming National BMX Coach, adds world-class technical coaching skills to the team, and can move our riders forward with their skills, tactics, and fitness.

There is a large gap between our Canadian riders (except our top rider) and other countries, largely because of a lack of high-level technical coaching and limited use of an international calibre facility. There are a number of areas to address to close this gap:

- Need to develop riders earlier, need a National Coach coaching National Team athletes
- Need an indoor training facility, make the most of cross-training opportunities such as downhill MTB and Track cycling
- Prevention of injuries and rehabilitation of athletes
- Number of athletes earning points for Canada for Olympic qualification
- Mental wellness and sport-specific mental training
- Planned, supervised strength & conditioning training done as a team

2013-2016

Rather than supporting one athlete, as we have done for the Beijing and London quadrennials, we will be **supporting a cohort of riders** who can push each other and help qualify Canada for the Rio Olympic Games. We are aiming to qualify 2 spots for Men and 2 spots for Women, requiring at least 6 riders for 2015-2016 and 8 riders for the beginning of the quadrennial.

For 2013-2014, the National Coach will be aiming to build a **training group of up to 25 riders in Abbotsford**, to work regularly with the riders and see who has the potential to succeed internationally. Many Canadian riders (even Elites) are currently working without any coaching, so it's possible that we could see a rapid improvement in performance. The focus for the **2013-2014** year will be on **good quality training** that is supervised, with lots of **opportunities for riders to ride "in traffic"** on the track. In order to fast-track the skills of riding in traffic the National Coach may, on occasion, invite top foreign riders to be part of the training. The focus will shift towards competition later in the quadrennial, once the riders have improved their skills, technique, strength, and tactics to a level where they can be competitive internationally.

There will be a **new track opening in Toronto in 2014**, providing another training and competition venue. This is an opportunity to create a **second training group** under the supervision of a **Development Coach**, with program planning and overall management done by the National Head BMX Coach.

Program benchmarks were established in 2008 to track the progress of the BMX system and processes. The key performance indicators of the system focused on **team size, depth of field, number of events targeted, and overall team performance markers** such as nation ranking at World Cups and World Championships. Overall UCI Nation Ranking was the highest priority indicator, as this was used to determine qualification places for the Games. We will be assessing the usefulness of these key performance indicators with the new National Coach, **revising them to match our four- and eight-year goals**, and using them as **part of our annual performance review**.

Benchmark	2009 Target	2009 Actual	2009 Met	2010 Target	2010 Actual	2010 Met	2011 Target	2011 Actual	2011 Met	2012 Target	2012 Actual	2012 Met
# of medals at Senior World Championships	1	0	N	1	0	N	0	0	Y	0	0	Y
# of medals at UCI World Cups	1	0	N	1	0	N	0	0	Y	1	2	Y
Best Overall UCI Ranking (Women)	15	12	Y	15	not ranked	N	50	40	Y	40	37	Y
Best Overall UCI Ranking (Men)	50	42	Y	32	20	Y	10	9	Y	5	4	Y
Overall UCI Nation Ranking (Elite Women)	15	12	Y	15	not ranked	N	15	14	Y	7	17	N
Overall UCI Nation Ranking (Elite Men)	10	9	Y	11	20	N	11	8	Y	11	10	Y
# of BMX athletes in the National Team pool	10	10	Y	10	10	Y	10	15	Y	10	10	Y
# of BMX athletes carded	6	7	Y	6	5	N	6	5	N	6	4	N
# of Olympic BMX events targeted by National Team pool riders	1	1	Y	1	1	Y	1	2	Y	1	1	Y
# of BMX events qualified for the 2012 Olympics (2012 only)										1	1	Y
Ranking at best two World Cups							-	-				
Overall UCI World Championships Ranking by medal type								not ranked			not ranked	
Overall UCI World Championships Ranking by number of medals								not ranked			not ranked	
# benchmarks met			7			3			8			8
# benchmarks set			9			9			9			10
% of benchmarks achieved			78			33			89			80

What	When
1. Build a training group in Abbotsford (up to 25 riders)	Start Dec 2012
2. Address the UCI/ABA licensing issues to bring kids into SX	April 2013
3. Prepare for second training group in Toronto	Oct-Dec 2013
4. Identify opportunities and needs for possible TT Olympic medal	2014
5. Assess, revise, and set targets for program benchmarks for 2016 and 2020	Jan 2013

Competitive Advantages

We are moving into a quadrennial where we have competitive advantages in BMX for the first time. While these points may seem basic, there are few countries who have all of these in place.

- International calibre BMX-specific full-time National Head Coach
- Olympic-standard training facility, with another opening in 2014 (with priority access to both)
- Training group, coach, and IST centralized around Supercross track (few countries able to do this)
- Sprint cycling physiology expertise from an identified expert

OVERALL ACTION POINTS

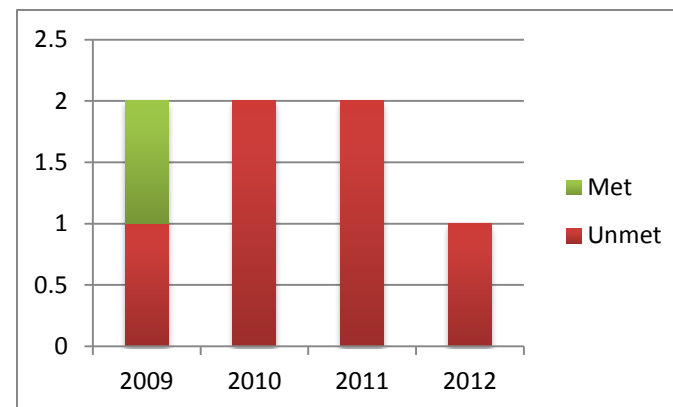
2013	Identify high performance training group out of Abbotsford, establish daily training environment and Science & Medicine Team, national Talent ID strategy, focus on training rather than competition, Coach performance reviews
2014	Establish Performance Development training groups in Abbotsford and GTA, Identify potential Pan Am Games athletes, participate in Test Event, trial a limited number of scientific interventions, focus on training rather than competition, mid-quad review, staff and athlete Olympic venue visit, Coach performance reviews
2015	Pan Am Games in Milton, focus shifts to competition and Olympic qualification, finalize Olympic staffing model, implement successful interventions from 2014, focus resources on fewer athletes who can earn qualification points, Olympic Test Event, publish Olympic Selection Policies, Coach succession planning, Coach performance reviews
2016	Continuity of staff and athletes, Olympic team selection, “lock-down” of final plans by May 1 st , build 2020 quadrennial plan in January-February, Olympic debrief October 2016, coach performance reviews

REVIEW OF SCHEDULE B

REVIEW OF BENCHMARKS 2012-13

Our BMX team met 0 of 2 benchmarks (0%) in 2012-13, due to our top rider's injuries. He missed World Championships, and placed 18th at the Olympic Games.

Over the past four years, our BMX team has had a dismal history of injuries and retirements that has resulted in no benchmarks being met since 2009. With such a small team and few benchmarks set, the impact is clear in the chart to the right, with 0% of targets met for the past three years. This was the trigger for us working to find ways of reducing injuries not just in BMX, where it has an obvious impact, but in our other sports as well where the effects of injuries is often hidden by sheer numbers.



These benchmarks are not a reflection of the quality of the rider(s) that we have in Canada, but of the lack of Supercross track access and full-time technical coaching that were the frustrations of the last quadrennial.

PROPOSED BENCHMARKS 2013-16

At the moment, we have one rider who is targeting the podium in Rio 2016. We believe that through the combination of improvements we have planned for this quadrennial, we will identify and fast-track at least one female as well, along with other riders who are able to earn points for Olympic qualification.